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SHORT COMMUNICATION

Materials to the knowledge of Polish sawflies. The genus *Dolerus* Panzer, 1801 (Hymenoptera, Symphyta, Tenthredinidae, Selandriinae). Part X - *Dolerus germanicus* (Fabricius, 1775)¹

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ABSTRACT

The paper presents historical and new faunistic data concerning the occurrence of *Dolerus germanicus* (Fabricius, 1775) in Poland, supplemented with elements of bionomy – in particular phenology of the appearance of imagines – and general geographical distribution.

Keywords: Hymenoptera, Symphyta, Tenthredinidae, Selandriinae, *Dolerus germanicus*, sawflies, Poland, faunistic data, bionomy

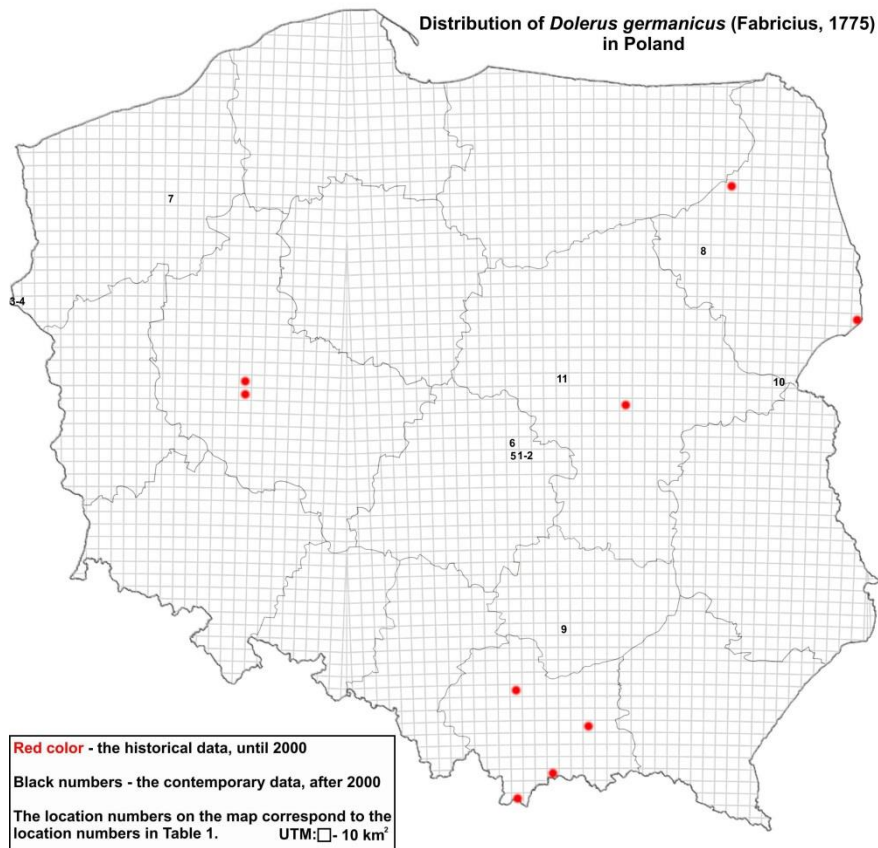
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In the presented series of elaborations, focusing on faunistics and bionomy of Polish representatives of *Dolerus* Panz., the authors wish to report the results of collecting on more than thirty Polish localities in 2012-2017. The list (with short description) of localities on which *Dolerus germanicus* (Fabr.) has been found is presented in Table 1, and general distribution of the species in Poland on Map 1. Most of the specimens were collected by the authors of this paper. Two specimens were caught by M. Bidas (see paragraph “New localities”). All specimens have been deposited in the Department of Forest Protection and Ecology SGGW, in Rogów.

Table 1. List of localities of *Dolerus germanicus* (F.) in 2012-2017.

Locality number	Locality name	GPS coordinates UTM grid	Short description
1	Głuchów Range - „Pańska” meadow	N 51°44’56” E 20°05’16” UTM: DC33	Meadow on the grounds of the Forest Experimental Station, Rogów Forest Inspectorate, Głuchów Forest District; mid-forest meadow with rich herbaceous vegetation and some drainage ditches, partly cultivated as hunting plot.
2	Gutkowice Range	N 51°45’55” E 20°02’25” UTM: DC33	Forest area with abundant pines; nearby river Rawka with numerous small patches of sedge, xerothermic vegetation and hay-growing meadows.
3	Cedynia	N 52°52’24” E 14°12’19” UTM: VU45	Within the borders of the town; roadside, ruderal and xerothermic vegetation.
4	Stary Kostrzynek	N 52°49’53” E 14°08’15” UTM: VU45	Meadows on the Odra river; grassy, here and there xerothermic vegetation with some patches of horsetails and sedges.
5	„Leszczyny Colony” – wet meadow”	N 51°47’15” E 19°54’44” UTM: DC23	Wet hay-growing meadow near Leszczyny Colony, with numerous species of sedges, grasses, rushes and horsetails, surrounded by ditches draining water exudatives.
6	Rogów – railroad embankment	N 51°49’59” E 19°54’27” UTM: DC24	Slopes of embankment of the Łódź Fabryczna – Skierniewice railroad, in the immediate vicinity of forest; xerophytic vegetation with numerous species of grasses, umbelliferes, horsetails and few sedges.
7	Złocieniec, surroundings of the city	N 53°32’36” E 16°00’11” UTM: WV63	Side spaces of roads, fallows, forest edges, railroad embankments, ruderal vegetation.

8	Drozdowo	N 53°09'03" E 22°10'03" UTM: ED79	Natural, partly mowed wet meadow on the Narew, temporarily inundated each spring; large patches of sedges, horsetails and not numerous areas overgrown with grasses or flowering herbaceous plants.
9	Pińczów	N 50°31'08" E 20°30'52" UTM: DA69	Edges of lagoon and landing field for airplanes; numerous patches of reeds, sedges and grasses, few places with rich herbaceous vegetation including umbellate flowers.
10	Serpelice	N 52°16'52" E 23°03'23" UTM: FC39	Natural meadows immediately on the Bug river.
11	Kampinos National Park - „Wiejca” meadows	N 52°20'53" E 20°41'08" UTM: DC69	Natural, partly exploited wet meadows between Wiejca and Korfowe; numerous patches of sedge, large expanses of horsetails and small spots overgrown with hygrophilous herbaceous plants.



Map 1. Distribution of *Dolerus germanicus* (F.) in Poland.

Dolerus (Dolerus) germanicus germanicus (Fabricius, 1775) (Fig. 1)

Known localities: Kraków, Tatra Mts. (Wierzejski 1868); Gródek (Niezabitowski 1897); Kraków (Niezabitowski 1897, 1899); Białowieża, Masurian Lakeland: Łękowo (Bischoff 1925); Otwock (Obarski 1931); National Park of Wielkopolska: Skrzynka Lake, Ludwikowo, Mosina, Góreckie Lake, Budzyńskie Lake, Puszczykowo (Szulczewski 1939); Poznań Prov. (Bogucka-Kaster 1970); Pieniny Mts. (Huflejt 1978).

New localities: {1}, Głuchów Range (UTM: DC33), 27.V.2017, 1♂, 1♀; 30.V.2016, 1♀; {2}, Gutkowice Range (UTM: DC33), 27.VII.2014, 1♀; {3}, Cedynia (UTM: VU45), 1.VI.2017, 1♀; {4}, Stary Kostrzynek (UTM: VU45), 30.V.2017, 1♀; {5}, Leszczyny Colony (UTM: DC23), 20.VII.2016, 4♂♂, 2♀♀; {6}, Rogów: Doliska/Zimna Woda Ranges (UTM: DC24), 22.IV.2014, 1♀; 12.V.2015, 3♂♂; 19.V.2013, 3♂♂, 3♀♀; 12.VI.2012, 1♂; 16.VIII.2017, 4♀♀, 1♂, on flowers of *Pastinaca sativa* L.; {7}, Złocieniec (UTM: WV63), 7.VIII.2017, 1♀, on flowers of *Heracleum sphondylium* L.; {8}, Drozdowo (UTM: ED79), 15.V.2013, 6♀♀, 3♂♂; {9}, Pińczów (UTM: DA69), 30.V.2013, 2♂♂, 1♀; {10}, Serpelice (UTM: FC39), 14.VII.2014, 2♀♀, leg. M. Bidas; {11}, Kampinos National Park (UTM: DC69), 18.VIII.2017, 1♀.

Host plant: *Equisetum* spp.

Geographical distribution: The *D. germanicus germanicus* occurs almost throughout Europe, especially in the central and southern parts of it. Subspecies *D. germanicus fuscipennis* (Steph.) is known from the northern part of Sweden and Kamchatka; *D. germanicus sibiricus* Zhelochov. occurs in the northern part of Russia and *D. germanicus subsolanus* Zhelochov. in the eastern part of Russia (Haris 2000; Taeger & al. 2006, 2010; Sundukov and Lelej 2009).

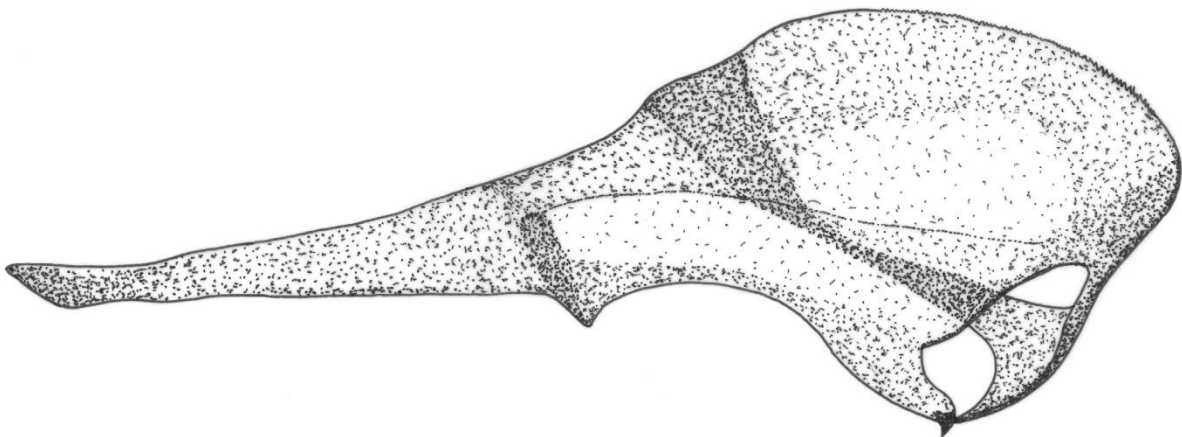


Fig. 1. *Dolerus germanicus* (F.) – a right penis valve of male aedeagus (outer view).

One of the most common the horsetail-infesting species of the genus *Dolerus*. Occurs as well in wet places near water as in arid, xerothermic habitats. Males and females appear simultaneously, flying in May, with the peak of swarming in the second and third decade (Fig. 2); specimens observed in July, of distinctly darker wings, seem to belong to the second generation. Representatives of this species – especially those flying in July and August –

frequently feed on flowering umbelliferes – the author (JB) observed them on flowers of *Pastinaca sativa* L. and *Heracleum sphondylium* L.

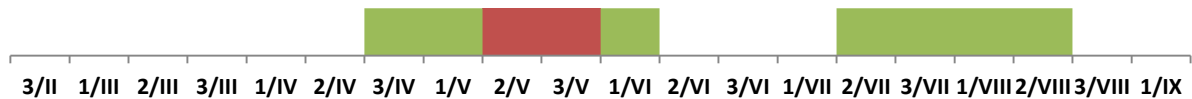


Fig. 2. Period of appearance of *Dolerus germanicus* (F.) imagines in Central Poland (maximum intensity of swarming marked with red); II – IX – months from February to September; 1, 2, 3 – decades of particular months.

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References

- [1] Bischoff H. 1925. Hymenoptera (Aculeata, Ichneumonidae, Chalcididae). In: Beiträge zur Natur- und Kulturgeschichte Lithauens und angrenzender Gebiete. *Abhandlungen der Bayerischen Akademie der Wissenschaften*, Suppl. 7: 278-337.
- [2] Bogucka-Kaster H. 1970. Entomofauna rosy miodowej sporyszu – *Claviceps purpurea* Tul. *Polskie Pismo Entomologiczne*, 40(3): 577-581.
- [3] Haris A. 2000. Study on the Palaearctic *Dolerus* Panzr, 1801 species (Hymenoptera: Tenthredinidae). *Folia Entomologica Hungarica*, 61: 95-148.
- [4] Huflejt T. 1978. Materiały do znajomości rośliniurek (Hymenoptera, Symphyta) Pienin. *Fragmenta Faunistica*, 21(4): 95-113.
- [5] Niezabitowski-Lubicz E. 1897. Przyczynek do fauny rośliniurek (Phytophaga) Galicyi. *Sprawozdanie Komisji Fizyograficznej*, 32(II): 63-74.
- [6] Niezabitowski-Lubicz E. 1899. Materiały do fauny rośliniurek (Phytophaga) Galicyi. *Sprawozdanie Komisji Fizyograficznej*, 34(II): 3-18.
- [7] Obarski J. 1931. Materiały do fauny rośliniurek (Tenthredinoidea, Hymenoptera) Polski, II. *Fragmenta Faunistica Musei Zoologici Polonici*, 1(13): 361-370.
- [8] Sundukov Yu. N., Lelej A.S. 2009. Sawflies (Hymenoptera, Symphyta) of the Russian Far East. Additions and corrections. *Far Eastern Entomologist*, 200: 1-12.
- [9] Szulczewski J.W. 1939. Błonkówki (Hymenoptera). Część I. Liściarki (Tenthredinoidea). *Prace Monograficzne nad Przyrodę Wielkopolskiego Parku Narodowego w Ludwikowie pod Poznaniem*, 1939(6): 1-30.
- [10] Taeger A., Blank S.M. & Liston A.D. 2006. European Sawflies (Hymenoptera: Symphyta) – A Species Checklist for the Countries. pp. 399-504. In: Blank S.M.,

Schmidt S. & Taeger A. (eds), *Recent Sawfly Research: Synthesis and Prospects*, Goecke & Evers, Keltern. 704 pp.

- [11] Taeger A., Blank S.M. & Liston A.D. 2010. World Catalog of Symphyta (Hymenoptera). *Zootaxa*, 2580: 1-1064.
- [12] Wierzejski A. 1868. Przyczynek do fauny owadów błonkoskrzydłych (Hymenoptera). *Sprawozdanie Komisji Fizyograficznej*, 2: 108-120.